



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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Michael R. Pence
Governor

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2016 Annual Reports

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Office of Pollution Prevention and Technical Assistance

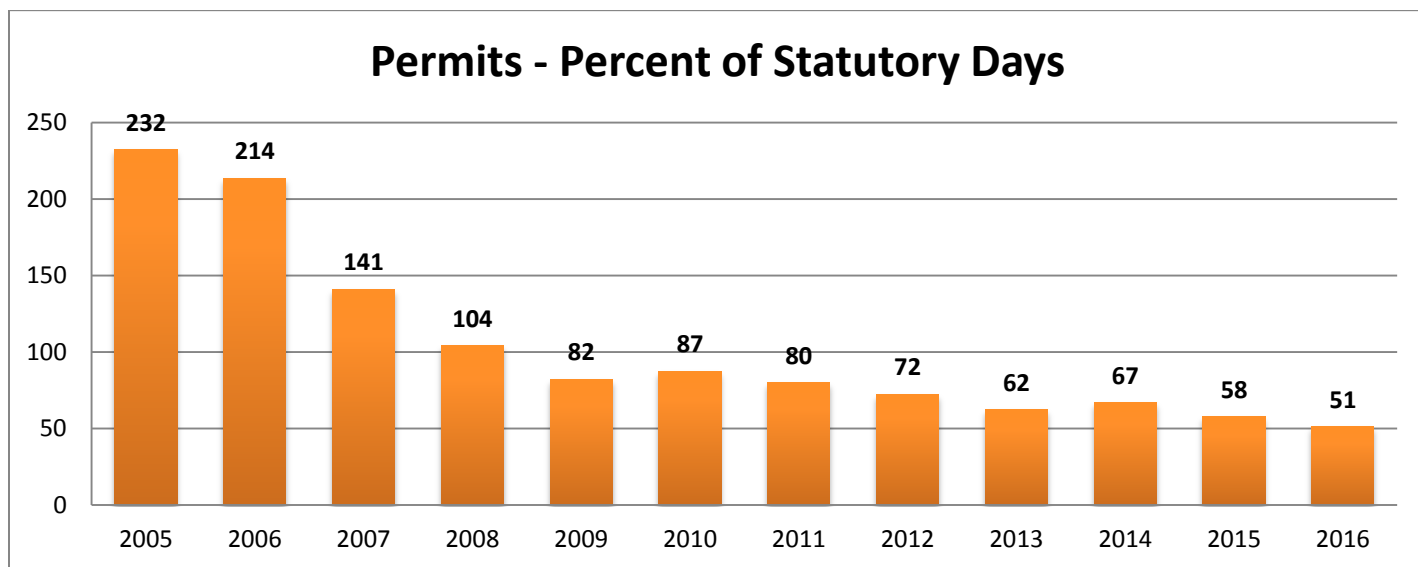
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The Following Reports Have No Activity

Water Body Designation as an Outstanding State Resource:	IC 13-18-3-2
Outstanding State Resource Water Improvement Fund Report:	IC 13-18-3-14

Permit Process Report
IC 13-15-12

Permit Efficiency:				
Total calendar days accumulated in issuing environmental permits, as determined by state statute				
Green is at or below 85% Yellow is above 85% and below 95%				
	Current	85%	95%	Statutory
Land	27,954	31,782	35,521	37,390
Air	28,136	47,269	52,830	55,611
Water	35,754	66,759	74,613	78,540
Totals	91,844	145,810	162,964	171,541



IDEM Back Logs Eliminated

- On January 10, 2005, there were 263 administratively extended NPDES permits and 289 unissued Title V permits. All of those have been issued and IDEM now issues permits using less than 70% of the statutorily allowed days.
- On January 10, 2005, there were 250 unresolved enforcement cases over 2 years old. Now there is only 1 case that is over 2 years old.

ADMINISTRATIVELY EXTENDED NPDES PERMITS
IC 13-15-4-19

NPDES Permit Renewals	
Number of Pending NPDES Renewals Submitted On-Time	0
Number of Pending NPDES Renewals Submitted Late (< 180 days prior to expiration date)	0
Number of Pending General NPDES Renewals Submitted Late (< 90 days prior to expiration date)	0
Total Number of Pending NPDES Renewals as of 7/1/2016	0

* Additional Notes	
Of the pending NPDES permit renewal(s), number which have already been public noticed.	0
EPA-defined Permit Backlog (only counts a permit as backlogged if it is still pending > 180 days past the Expiration Date)	0

New NPDES Permits	
Number of Pending New NPDES applications exceeding the statutory timeframes of IC 13-15-4-1	0

ENFORCEABLE OPERATING AGREEMENT PROGRAM REPORT
IC 13-17-13-3

The Indiana Department of Environmental Management (IDEM) has a Source Specific Operating Agreement (SSOA) program (pursuant to 326 IAC 2-9) under which specific types of activities may operate, provided that the source accepts the pre-established terms of the SSOA "as is." Although a source may not simultaneously operate under more than one of the same type of SSOA, sources can operate under up to 4 different SSOAs, as long as the total potential to emit for any regulated pollutant, as limited by the SSOAs, does not exceed major source levels.

In all, there are 23 separate SSOAs available to applicants, covering 13 specific types of activities. For those SSOAs that limit the total potential to emit for any regulated pollutant to less than twenty-five (25) tons per year, a public comment period is not required (for a list of these SSOAs, see 326 IAC 2-1.1-3(d)). However, pursuant to 326 IAC 2-5.1-3(a)(1)(E), for those SSOAs that have a limited potential to emit for any regulated pollutant of twenty-five (25) tons per year or more, a New Source Review (NSR) Permit for approval to construct and a thirty (30) day public comment period is required. The final issuance of any SSOA is appealable. With the exception of coal mining and some stone crushing SSOAs, there is no annual fee required, but sources are required to file an annual Compliance Notification. Sources are not required to renew their SSOA.

Pursuant to 326 IAC 2-9-1(i), a SSOA does not relieve the permittee of the responsibility to comply with the provisions of any other applicable federal, state, or local rules, or any New Source Performance Standards (NSPS), 40 CFR Part 60, or National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61 or 40 CFR Part 63.

As of June 27, 2016, there are 777 currently permitted SSOA sources. To date in FY16 (July 1, 2015 – June 27, 2016), there were SSOAs issued to 16 sources.

LEGISLATIVE REPORT ON CFO/CAFO ACTIVITIES FY 2016 **Senate Resolution 2512-2007**

The Indiana Department of Environmental Management's (IDEM) Office of Land Quality administers the animal feeding operation regulatory program in Indiana. This program includes permitting, compliance monitoring and enforcement activities for 1,163 Confined Feeding Operations (CFOs) and 682 Concentrated Animal Feeding Operations (CAFOs) for a total of 1,845 operations subject to permitting and inspection. In accordance with Senate Resolution 2512, the below information is provided by the Indiana Department of Environmental Management for the time period July 1, 2015 through June 30, 2016.

Permit Type	Reason for Inspection	Number of Inspections
CFO	Paperwork Certificate of Completion (CoC) Follow-Up	10
	Compliance Assistance	12
	Construction	23
	Complaint Inspection	9
	Follow-Up Inspection	27
	Routine Inspection	187
	Spill Response Inspection	0
	Voidance	45
	Other (permit, enforcement, site status...)	17
	Total	330
CAFO	Paperwork (CoC) Follow-Up	8
	Compliance Assistance	10
	Construction	94
	Complaint Inspection	13
	Follow-Up Inspection	17
	Routine Inspection	101
	Spill Response Inspection	3
	Voidance	6
	Other (permit, enforcement, site status...)	8
	Total	260
CFO/CAFO Totals	Paperwork (CoC) Follow-Up	18
	Compliance Assistance	22
	Construction	117
	Complaint Inspection	22
	Follow-Up Inspection	44
	Routine Inspection	288
	Spill Response Inspection	3
	Voidance	51
	Other (permit, enforcement, site status...)	25
	Total	590

CFO and CAFO Violations Cited from July 1, 2015 to June 30, 2016

Permit Type	Citation/Violation	Number of Violations
CFO	Approval and Performance Standards	13
	Discharge and Spill Requirements	0
	Land Application Records	70
	Operating Records	58
	Operational Standards	40
	Land Application	8
	Total	188
CAFO	Approval and Performance Standards	13
	Discharge and Spill Requirements	9
	Land Application Records	13
	Operating Records	14
	Operational Standards	20
	Land Application	4
	Total	73
CFO/CAFO Totals	Approval and Performance Standards	26
	Discharge and Spill Requirements	9
	Land Application Records	83
	Operating Records	72
	Operational Standards	60
	Land Application	12
	Total	262

Permitting Activities: CFO and CAFO Application Details from July 1, 2015 to June 30, 2016

Application Type	Received	Issued	Denied*	Withdrawn
CFO Approval Applications (New Construction)	49	45	1	3
CFO Permit Construction Applications (Expansion)	82	76	0	6
Large CAFOs	0	0	0	0
Med. CAFOs	0	0	0	0
Small CAFOs	0	0	0	0
Total Construction Applications	131	121	1	9
Individual NPDES CAFO Permit Coverage	0	0	0	0
Large CAFOs	0	0	0	0
Med. CAFOs	0	0	0	0
Small CAFOs	0	0	0	0
Individual NPDES CAFO Permit Renewal Application	0	0	0	0
Large CAFOs	2	0	0	0
Med. CAFOs	0	0	0	0
Small CAFOs	0	0	0	0
Total Other NPDES Permit Applications	0	0	0	0
All Application Totals	131	121	1	9

NOTE: The designation of a large, medium, or small CAFO in this table is for numbers of animals only. None have an NPDES CAFO Coverage Permit. We only have two (2) farms with an NPDES Permit.

CFO and CAFO Enforcement Actions and Penalties
From July 1, 2015 to June 30, 2016

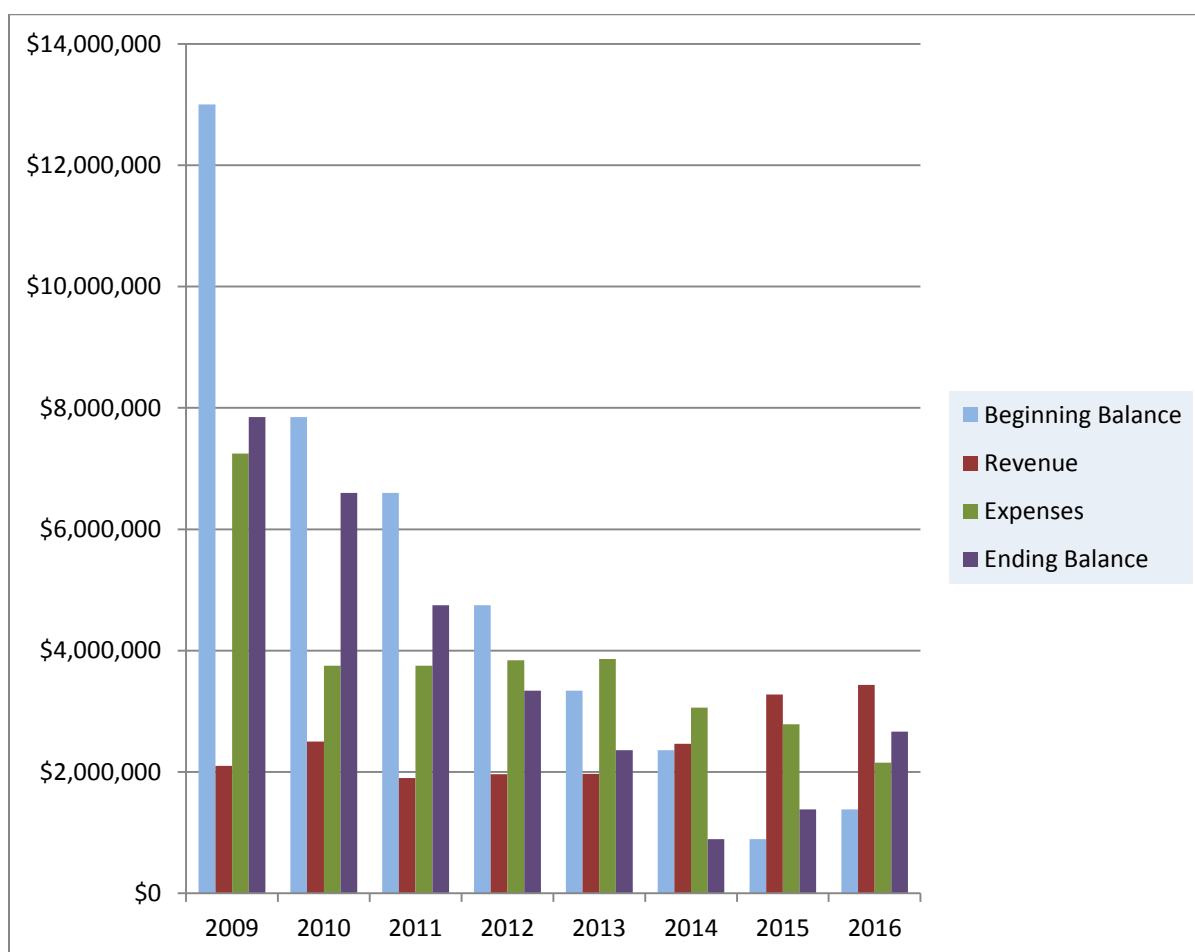
Notice of Violation Issued			
CFO			17
CAFO			0
Total			17
Agreed Orders			
	Water Quality	Construction Requirements	Permit/Approval Conditions
CFO	1	15	2
CAFO	1	0	0
Totals	2	15	2
Civil Penalties			
	Water Quality	Construction Requirements	Permit/Approval Conditions
CFO	\$9,200	\$79,687	\$4,000
CAFO	\$25,000	\$0	0
Totals	\$34,200	\$79,687	\$4,000
Total Agreed Orders and Civil Penalties			
CFO	18	\$92,887	
CAFO	1	\$25,000	
Totals	19	\$117,887	

Hazardous Substance Response Trust Fund Report **IC 13-25-4-25**

In FY 2016, the Hazardous Substance Response Trust Fund (Trust Fund) saw revenue exceed expenses for the second year in a row. The beginning balance of the Trust Fund for FY 2016 was \$1,383,076. The total revenue from cost recovery, enforcement penalties and hazardous waste disposal tax was \$3,436,348. Total expenses for FY 2016 were \$2,151,572. This left a year-end asset balance of \$2,667,852. A significant reduction in expenses was realized in FY 2016 for the Trust Fund. Notably, the reduction in expenses were realized through a reduction in contract expenses for operation and maintenance remedial activities for Superfund sites and a shifting of IDEM Agency Wide Services expenses out of the Trust Fund budget. It is expected that the revenue for FY 2017 will be similar to FY 2016 levels. Expenses are forecasted to increase slightly for FY 2017. It is anticipated that a net increase in the balance of the Trust Fund will be realized at the end of FY 2017. The expenses for the Trust Fund include the State Cleanup Program (SCP) management of remediation of hazardous substances contaminated sites, Federal grant matching money for cleanup of sites listed on the National Priorities List (NPL or Superfund), and long-term operation and maintenance of sites completing the Superfund process.

The following graph depicts the recent financial trend for the Hazardous Substance Trust Fund:

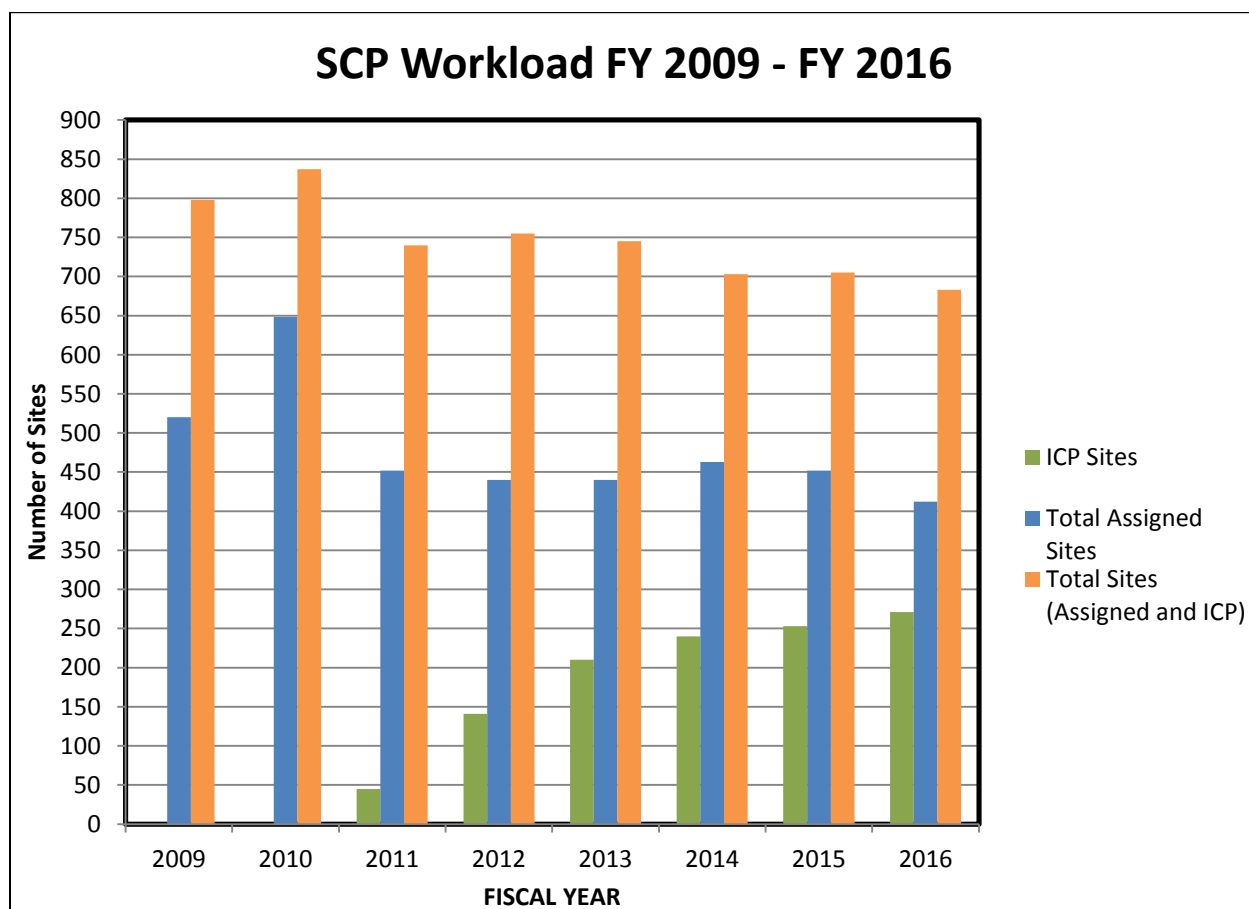
Trust Fund Balance and Revenue Trend (FY 2009 – 2016)



The SCP is an enforcement program in the Remediation Branch of the Office of Land Quality. The role of the SCP is to manage the remediation and closure of hazardous substances and petroleum contaminated sites not eligible to be managed

by the Federal Superfund Program or by the IDEM Leaking Underground Storage Tank or Excess Liability Trust Fund Sections. Common examples of SCP sites include current and former dry cleaners, current and former manufacturing facilities, petroleum pipelines, refineries, and petroleum bulk storage facilities. The sites within the SCP range from less than a quarter acre of contaminated area to ground water impacted areas well over a mile in length. Typical contaminant exposure risks associated with sites in SCP are contaminated residential and municipal wells, contaminated indoor air of residential homes or contaminated surface waters and waterway sediments.

The following is a description of the SCP activities that are supported by the Trust Fund. The bar graph below depicts the total number of hazardous substance and petroleum contaminated sites historically and currently being managed by the State Cleanup Program under the Trust Fund.



The SCP is partially financially self-sustaining through the ability to recover operating costs from parties responsible for conducting a contaminant cleanup. SCP operating and management costs are recovered and placed back into the Trust Fund and included as a revenue stream for the Trust Fund. In FY2016, \$743,909 was recovered from responsible parties by SCP through June 30, 2016.

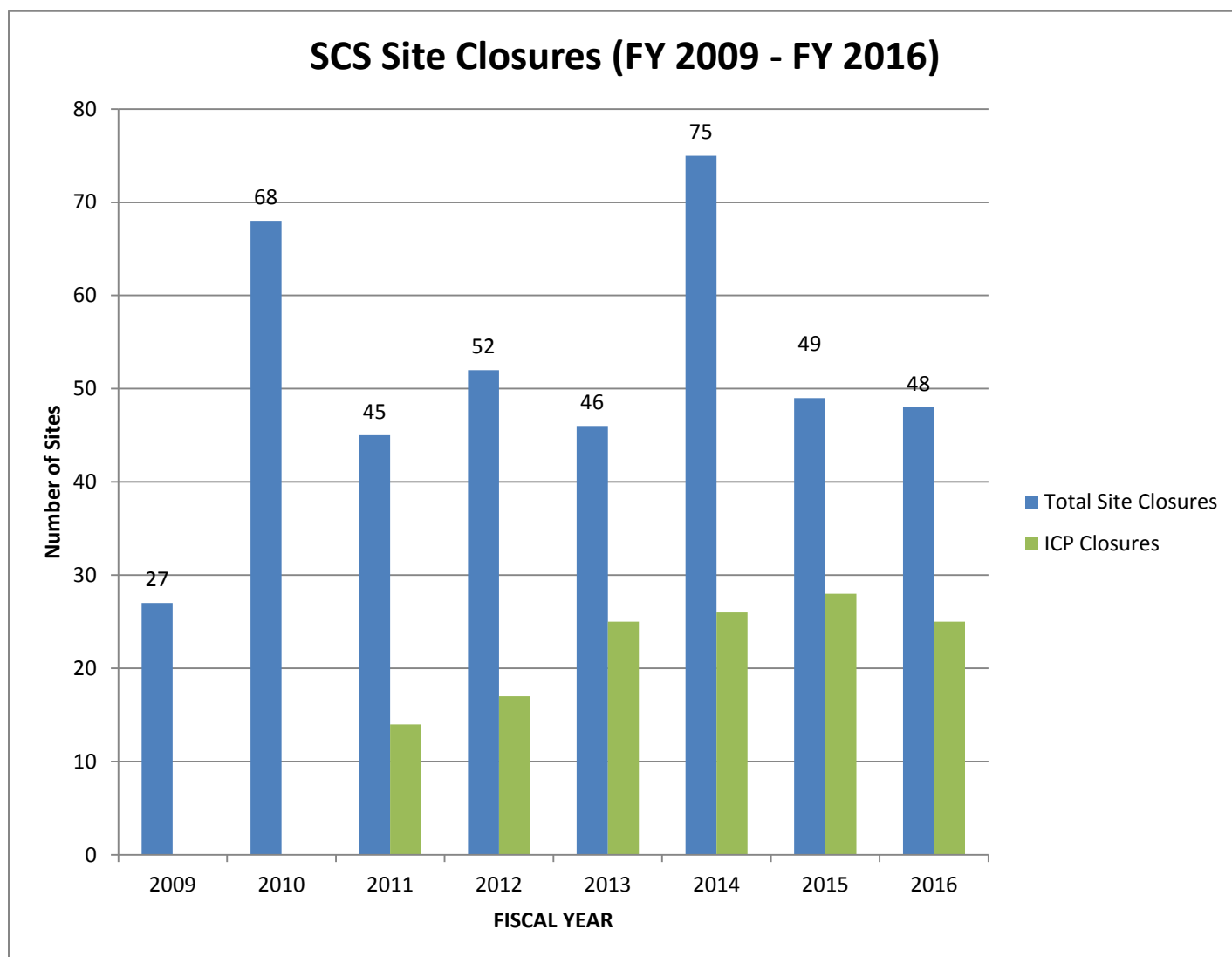
From FY 2009 to FY 2016, SCP has seen a stable trend in the total number of sites requiring remediation oversight. During FY 2016, SCP saw an increase in the number of sites transferring to other IDEM remediation programs, such as the Voluntary Remediation Program. This resulted in a decrease in the number of high priority sites assigned to SCP project managers. It is forecasted that this decrease will be temporary.

During FY 2012, SCP began full utilization of a self-implementing closure process to address the large number of low and medium priority petroleum sites that could not be assigned to project management staff due to staffing shortages and the increase in high priority sites. This self-implementing closure process is called the Independent Closure Process (ICP).

The ICP has created a structured independent process for low priority sites to close with no direct management oversight, only quality assurance auditing, by the SCP. This has allowed the SCP to more effectively and efficiently manage its high priority work load and concentrate its daily efforts on high priority sites contaminated by hazardous substances. From FY 2012 to FY 2016, the total number of sites managed through the ICP has grown from 50 sites to 271 sites. This has required increased administrative cost for SCP and the HSRTF, even though SCP attempts to maintain only minimal management of ICP sites. It is expected that the total number of sites will continue to increase during FY 2017.

As of the close of FY 2016, the SCP had 412 high and medium priority sites hazardous substance contaminated sites assigned to SCP project managers, and 271 low and medium priority petroleum sites assigned to the ICP.

During FY 2016, the SCP completed closure of 48 sites while receiving a total of 67 new sites. The SCP has overseen the closure of 951 sites during the history of the program. The following graph depicts the site closure trend since FY 2009:



Waste Tire Annual Report
IC 13-20-13-10

The Waste Tire Management Fund

Indiana Code (IC) 13-20-13-8 establishes the Waste Tire Management Fund (WTMF) to support Indiana's Waste Tire Management Program. The WTMF includes the remediation and removal of improperly disposed waste tires, promotion of the utilization of processed tire products, and the provision of financial assistance to reduce waste tire generation. Management of the WTMF was transferred from the Office of Lieutenant Governor to IDEM on July 1, 2007. Table 1 represents the revenue and expenditures administered through the fund for Fiscal Years 2008 through 2016.

Table 1: Revenue and Expenditures

Fiscal Year	Fee Reven	IDEM Grants	IDEM Cleanups
2008*	\$1,596,240	\$292,644	\$0
2009*	\$1,623,795	\$1,000,000	\$592,705
2010*	\$2,299,645	\$0	\$0
2011*	\$1,380,044	\$0	\$0
2012*	\$1,325,612	\$0	\$779,873
2013*	\$1,362,464	\$210,679	\$0
2014*	\$1,568,844	\$0	\$0
2015	\$1,571,211	\$0	\$0
2016	\$1,632,663	\$0	\$0

** July 1 of the specified year through June 30 of the next year.*

Suspension of Waste Tire Management Grant Program

The Indiana Department of Environmental Management (IDEM) has temporarily suspended the grant program. Due to the suspension of the grant program, no projects were funded and no money was expended for FY 2015. Estimates of money required to meet grant requests or recommended changes to the program will not be provided through this annual report until the grant program is reestablished. This report will only review the WTMF as related to the management of waste tires through this program.

The Waste Tire Management Program

The Office of Land Quality (OLQ) is responsible for regulating waste tire management activities. Indiana Administrative Code (IAC) 329 15 provides the framework for the 60 transporters, 15 processors, and 5 storage facilities that maintain waste tire registrations.

More than 6 million passenger tire equivalents (PTEs) were received by waste tire processors. Figure 1 shows how waste tires were utilized from January to December of 2015.

Figure 1: Waste tire utilization for FY 2015.

WASTE TIRE UTILIZATION	TONS
Landfill (Solid Waste)	4145.34
Landfill (Alternate Daily Cover)	17494.23
Tire Derived Fuel	31080.37
Legitimate Use - Civil Engineering	11909.78
Legitimate Use - Other	789.00
Other	5906.01

The following sections detail the registration program that is supported by the WTMF:

Waste Tire Transporters

Waste tire transporters hauling waste tires in Indiana pay a \$25 application fee for their initial 5-year registration, after which they can renew for free. There is an annual \$25 operating fee. Transporters must also maintain a financial assurance mechanism of at least \$10,000. Transporters must annually report the number of waste tires hauled. A list of currently registered transporters with IDEM may be found online at:

http://www.in.gov/idem/wastetire/files/wt_transporters.pdf.

Waste Tire Processors Facilities

The application and renewal fee for a 5-year waste tire processing registration is \$200. There are no annual operating fees for waste tire processing facilities. They must annually report the number of tires processed and how the waste tires are utilized. If a processor accumulates more than 1,000 tires, they must also register as a storage site.

Waste Tire Storage Facilities

Waste tire storage is limited to 1,000 tires outdoors or 2,000 tires indoors without needing a permit. Waste tire storage sites must register if they plan on storing waste tires above those limits. The application fee for the initial registration is \$500, but there is no renewal fee. Waste tire storage facilities also pay a \$500 annual operating fee, and they must establish financial assurance. The financial assurance is based on third-party cleanup costs for the volume of material stored on the site. There are no renewal fees for storage sites.

A list of waste tire processors and storage facilities currently registered is available at:

http://www.in.gov/idem/wastetire/files/wt_processors_and_storage.pdf.

Registration applications, annual reporting forms, and manifest forms for transporters, processors, and storage facilities are available at: <http://www.in.gov/idem/wastetire/2336.htm>.

Compliance and Enforcement

Enforcement actions are initiated by OLQ to correct violations, assure facility compliance, and facilitate clean-up of tire dumps that represent a threat to human health and the environment. There were 6 new cases opened by IDEM's enforcement staff regarding waste tire violations in FY 2015. The new cases were 5 open dumps and 1 registered transporter/processor/storage site with violations.

Major sources of waste tires are subject to OLQ compliance inspections for proper waste tire management practices. These include vehicle maintenance facilities, transportation companies, new and used tire dealers, tire retreading plants, and auto salvage operations.

Although waste tire generators or sources are not required to register with OLQ, IC 13-20-14 has waste tire management requirements for specific operations.

New tire retailers are required to accept the same number of waste tires that are replaced by new tires purchased by the consumer. A handling charge is collected by the dealer for this service, in addition to a \$0.25/tire new tire fee. All sources of waste tires are responsible for delivery of their tires to an approved processing facility. This service is provided by registered waste tire transporters. All major sources of waste tires are required to maintain records of waste tire manifests that document proper waste tire management.

Indiana Household Hazardous Waste Grant Program Annual Report **IC 13-20-20-12**

Introduction

The Indiana Department of Environmental Management (IDEM), Office of Program Support provided grant funding and technical assistance to Indiana local units of government for the development and operation of household hazardous waste (HHW) and conditionally exempt small quantity generator waste (CESQG) collection programs. From 1994 to 2008, IDEM provided 175 HHW grants and 5.8 million dollars in support to communities and solid waste management districts. This funding helped start and expand HHW programs or activities, provide safe management of household hazardous products, and educate residents about preferred disposal options for HHW.

Suspension of HHW Grant Program

The Indiana Department of Environmental Management, in December of 2008, suspended state-funded grant programs for local government recycling projects, including the Household Hazardous Waste Grant Program. Due to the suspension of the grant program, no local government projects have been funded since 2011, and no money has been expended through the grant program. Until the grant program is re-instated, no estimate of money required to meet grant requests or recommended changes to the program will be provided through this annual report. IDEM continues to provide technical assistance to Indiana residents, local government and businesses on HHW and CESQG collection and management issues, including household pharmaceutical and sharps waste management.

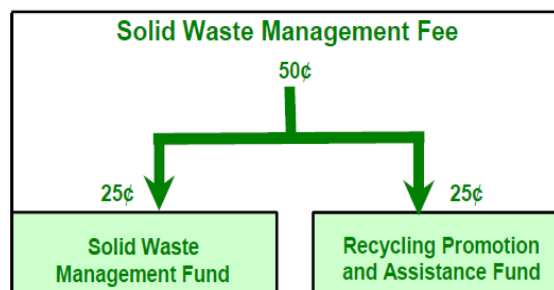
Conclusion

IDEM technical support and grants have provided important support for the growth of HHW programs and services in Indiana. HHW programs educate residents on safe storage and management of household chemicals which helps prevent accidental poisoning of children and household accidents. HHW programs provide a way for residents to safely dispose of used motor oil, gasoline, pesticides, and other hazardous products used in the home, making homes safer and reducing hazards for fire fighters. The hazardous and problem waste managed, collected and properly disposed, by HHW programs, is diverted from disposal in Indiana lakes, streams, storm drains, and ravines, reducing pollution and clean-up cost for Indiana communities. For more information on IDEM HHW reduction efforts, please visit www.recycle.in.gov.

Annual Recycling Report **IC 4-23-5.5-6**

The Recycling and Reporting Section within the Office of Program Support provides financial and technical assistance to develop recycling activities through two means: the Recycling Grant Program (IC 13-20-22-2) and the Recycling Market Development Program (RMDP) (IC 4-23-5.5-14). These programs work to reduce solid waste disposal and increase Indiana's recyclable material manufacturing capacity, as well as increase the use of recycled content products by working with local units of government, solid waste management districts, schools, not-for-profits, businesses, and recycling industries. Promoting the concept of collecting, using, and producing recycled materials in Indiana is a means of supporting the agency's initiatives of job creation and economic stability leading to environmental stewardship of natural resources.

Funding for the Programs comes from the Solid Waste Management Fee--a \$.50 per ton charge on final disposal of solid waste at a landfill or incinerator. Accordingly, the Solid Waste Management Fund receives \$.25, which supports the Recycling Grant Program. This Program has assisted communities by allocating funding for Public Recycling, Education and Promotion Grants, and, School Recycling Learning Grants.



The other half of the Solid Waste Management Fee is deposited in a separate fund: the Recycling Promotion Assistance Fund, which supports the Recycling Market Development Program. The RMDP offers grants to eligible Indiana businesses. Funding decisions for the RMDP projects are approved by the Recycling Market Development Board.

No funds were allocated for grants from either program in FY 2016.

The final two Recycling Promotion and Assistance Fund loans were closed out in calendar year 2015; the total amount repaid in 2015 was \$196,714.66.

Total revenue received for the Solid Waste Management Fund for FY 2016, was \$1,183,460; and the total revenue for the Recycling Promotion and Assistance Fund for FY 2016 was \$1,998,784.

For more information about recycling in Indiana and recycling resources, please visit the *Recycle Indiana* website at: www.recycle.in.gov.

Pollution Prevention Report **IC 13-27-6**

The Assistance and Outreach Branch of the Office of Program Support in the Indiana Department of Environmental Management (IDEM) is submitting this report to the Indiana General Assembly as required by Indiana Code 13-27-6. This report describes Indiana's Pollution Prevention (P2) activities and the measurable reduction results from 2015 efforts. The various P2 programs are summarized in the following categories: voluntary reduction programs, technical assistance, partnerships, reports, awards, grants, and education and training programs.

It is important to note that IDEM is continually seeking the most effective method for measuring the positive impact of pollution prevention activities. Currently IDEM uses surveys, annual reports from voluntary recognition program members, and final reports from grantees to measure pollution prevention progress and results. These tools do not capture all achievements resulting from pollution prevention efforts, but they are determined to be the best available tools for IDEM at this time.

Voluntary Recognition Programs

To encourage Indiana entities to pursue better environmental management practices, the P2 program offers recognition for participating in the Indiana Environmental Stewardship Program and Indiana CLEAN Community Challenge.

The Indiana Environmental Stewardship Program (ESP) is a performance-based recognition program for Indiana businesses. Each participating business has implemented an environmental management system, maintains a positive compliance record, and commits to at least one environmental improvement initiative each year. Participants are provided with regulatory benefits, reduced record keeping, advanced notice of routine inspections, and expedited permitting. In 2015, the fifty-four member facilities realized benefits in the following:

Reductions

- Water usage by 42,181,967 gallons.
- Energy usage by 48,605,330 kilowatt hours.
- Air emissions by 655 pounds of Hazardous Air Pollutants (HAPs), and 44,824 pounds of Volatile Organic Compounds (VOCs).
- Non-hazardous waste by 178,800 pounds and 1,412,014 pound increase in recycling.
- Hazardous Waste by 15,348 pounds.

Increases

- Increase land and habitat conservation by 1.26 acres.
- Increase in procurement of recycled content materials of 524,474 pounds.

Similar to ESP, the CLEAN Community Challenge is a technical assistance and recognition program for units of local government. CLEAN encourages communities to identify the environmental impacts from municipal operations and create a management plan focused on continual environmental improvement. Total membership as of December 2015 was fifteen municipalities. These members have committed to continuous environmental improvement by identifying the potential environmental impacts associated with municipal operations and implementing plans to proactively manage those impacts. Designated communities are required to submit an annual performance report which describes the progress made and hurdles overcome on their environmental projects for the year. To date, total benefits reported for 2015 include:

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- 200 trees planted and 500 given away to residents for planting
- 136,320 pounds of increased residential recycling
- New program established to recycle all of a municipality's fluorescent bulbs (Recycled 47 -4' fluorescent tubes, 10 - 8' fluorescent tubes, 4 – metal halide lamp bulbs in 2015).
- One community established a permanent drop-off at their police department for unwanted medicines and collected 15 pounds in the last quarter of 2015.
- 4,544 pounds of paper recycled
- Established one rain garden
- 78,545 pounds of Household hazardous waste collected
- Established an anti-litter campaign and collected 9,677 pounds of waste through community clean ups

Partnerships

The Partners for Pollution Prevention, in cooperation with IDEM, held four meetings during 2015 for Indiana entities to share pollution prevention strategies. One of these meetings was the Eighteenth Annual Pollution Prevention Conference and Trade Show. The day's agenda centered on the theme "P2's Impact on Sustainability" and allowed speakers to share information on adopting pollution prevention into everyday business operations. In addition to these ongoing educational opportunities, the Partners' members annually report on the results of their pollution prevention initiatives. The annual reporting deadline for 2015 reductions was June 1, 2016. Total reductions reported by members for 2015 include:

Air Emissions (pounds/year)	Hazardous Air pollutants (HAPs)	1,276,000
	Volatile Organic Compounds (VOCs)	91,600
	24,045,325	
Solid Waste (pounds/year)		68,149,650
Water Usage (gallons/year)		151,820
Non-Hazardous Material (pounds/year)		3,400
Hazardous Material (pounds/year)		1,819,741
Hazardous Waste (pounds/year)		9,981,837
Electricity (kwh)		100,490
Natural Gas		12,500
Vehicle Miles		143,999,452
Recycled (pounds/year)		86,513,000
Biomass Generated (kwh)		\$514,217

Governor's Awards for Environmental Excellence

The Indiana Governor's Awards for Environmental Excellence provide recognition to manufacturers, businesses, organizations, vendors, educators, and dedicated individuals for their outstanding environmental initiatives. These awards recognize Indiana's leaders who have implemented outstanding environmental strategies into their operations and decision-making processes. By seeking out and utilizing innovative environmental practices, facilities/programs reduce waste, save money, and contribute greatly to Indiana's environmental protection efforts, as well as benefit the health and welfare of Indiana's communities and the state as a whole.

Awards categories included: Energy/Renewable Resources, Pollution Prevention, and Environmental Stewardship. In 2015, a total of three Indiana businesses were given awards: General Motors Fort Wayne Assembly, LLC; Hanwha Q Cells USA; and Raytheon Intelligence, Information and Services.

Grants

In 2014, IDEM received an EPA grant to conduct Economy, Energy, and Environment Assessments (E3) in partnership with Purdue University's Manufacturing Extension Program. This was Indiana's first E3 Program. The assessments

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included Lean Value Stream Mapping (VSM) Training and Assessment, Environmental W.A.S.T.E. Stream Mapping Training and Assessment, Carbon Footprint Analysis, Facility Energy Assessment and Introduction to Energy / Environmental Management Systems Training, and also follow-up assistance to develop an action plan for implementation of recommendations resulting from assessments. The grant tasks were finalized in 2015 and early 2016 and the following are the results from the E3 assessments completed:

Program Scope:

- Facilities assessed: 4
- Number of Site Visits: 23
- Number of Workshops: 12
- Number of People Trained: 50
- Number of Opportunities Identified: 140

Estimated Cost Savings Breakdown by Program Component:

- Key Lean Opportunities: \$695,500 Savings
- Energy Savings Opportunities: \$332,000 Savings
- W.A.S.T.E. Stream Opportunities: \$514,300 Savings

E3 Program Projected Environmental Summary:

- Projected Water conserved: 525,700 gallons
- Projected Solid Waste Reduced: 1,631,000 pounds
- Projected Hazardous Waste Reduced: 517,400 pounds
- Projected TOTAL estimated cost savings: \$1,541,800

Indiana's Clean Vessel Act (CVA) pump out grant program allows a public or private marina to receive a reimbursement of up to 75% for the purchase and installation of a pump out system. Installing such a system at Indiana marinas will provide boaters with a proper method to dispose of their sewage and thus prevent it from entering Indiana's waters. In fiscal year 2015, grants awarded totaled \$7,452.

Indiana's Boating Infrastructure Grant Program (BIGP) provides grant funds for the construction, renovation, and maintenance of tie-up facilities with features for transient boaters, which are vessels 26 feet or more in length and stay less than 10 days. The grant allows for reimbursement of up to 75% for the purchase and installation of transient docks. These new facilities will allow boaters to come on shore to remove their sewage and enjoy the regional establishments. In fiscal year 2015, grants awarded totaled \$98,785.

Education and Training Programs

The Assistance and Outreach Branch provides pollution prevention education and training to Indiana schools and universities, the regulated industry, and general public.

66 IDEM staff visited 91 schools and reached over 13,384 Hoosier children during 2015. A variety of topics were covered including nonpoint source water pollution, recycling, and landfill construction.

Conclusion

IDEM continues to make progress implementing the Indiana Industrial Pollution Prevention and Safe Materials Act. The Assistance and Outreach Branch focuses on continually improving the programs' effectiveness to reduce pollution and accurately measuring reduction results. At this time, IDEM does not see a need for additional legislation in this area. For additional information on the state of Indiana's P2 Programs please call (800) 988-7901.

Compliance Advisory Panel Report **IC 13-28-3**

CTAP Activities July 1, 2015 - June 30, 2016

The federal Clean Air Act requires states to provide compliance assistance. IC 13-28-3 further defines Indiana's implementation of compliance assistance through the Compliance and Technical Assistance Program (CTAP) which has expanded assistance to all environmental programs: air, land and water.

CTAP activities are tracked and the following metrics help to measure program success and staff performance.

Internal Program Metrics for Calendar Year 2015 (Results as of June 30, 2016)

	<i>2015 Goal</i>	<i>Completed</i>	<i>Percentage of Goal</i>
<i>Site Visits</i>	252	189	76%
<i>Contacts with potential customers</i>	1,356	1,918	142%

Agency Metrics

<i>FY 2016 Goal: 250 site visits/year (average rolling total)</i>	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>
<i>Average Rolling Total of CTAP Site visits</i>	203	197	190	178

Compliance and Technical Assistance Numbers

- 921 total phone contacts

587 Air	79 Water
141 Land	114 Multi-Media/ Misc. Assistance

- 189 Site Visits
- Presented information at 26 events to 1,207 attendees

Additional Technical Assistance Provided

- Provided assistance to the ESP and CLEAN community programs.
- Worked to update the Environmental Management 101 training for small to medium sized companies with no EHS managers or with EHS managers that have little or no environmental experience to become knowledgeable in the basics of environmental management.
- Worked with IDEM and other state Small Business Environmental Assistance Programs (SBEAP) on several compliance and permitting initiatives.
- Promoted cooperation between IDEM and regulated entities.
- Provided CTAP Follow-up Letters to each company assisted. Follow-up letters clarify requirements to the customer and can be used to demonstrate the customer is proactively pursuing compliance to IDEM inspectors.
- Continued to manage Small Business Regulatory Coordinator duties as described in IC 4-22-2-28.1.

Mercury Switches in End of Life Vehicles Activities
IC 13-20-17.7

This program was established to remove mercury switches from end of life vehicles processed in Indiana by motor vehicle recyclers.

IC 13-20-17.7-2 requires IDEM to prepare an annual report that includes the number of mercury switches collected from end of life vehicles and the amount of mercury collected.

Mercury Switches Activities July 1, 2014-June 30, 2015

Total Number of Mercury Switches Collected from End of Life Vehicles	8,431 switches
Total Amount of Mercury Collected	18.55 pounds

E-Waste Report **IC 13-20.5-7-4**

The Indiana electronic waste (e-waste) law (IC 13-20.5) created an extended producer responsibility (EPR) program, known as Indiana E-Cycle, under which manufacturers of video display devices (VDDs) are required to collect and recycle e-waste from covered entities (households, small businesses, and public schools) in Indiana. IDEM manages the program.

The law requires that manufacturers of VDDs that offer their products for sale to Indiana households annually register with and report to IDEM. Each year these manufacturers are required to collect and recycle 60 percent by weight of the total weight of VDDs they sold to Indiana households during the previous twelve months. They can collect and recycle a broader range of products of any brand, known as covered electronic devices (CEDs), to fulfill their obligation. The law also contains a disposal prohibition which, as of January 1, 2011, prohibits covered entities from disposing of CEDs with trash that is intended for disposal at a landfill or by burning or incineration.

All collectors and recyclers that collect and/or recycle CEDs on behalf of a registered manufacturer must also register with and report to IDEM annually. If collectors and/or recyclers do not register with the program, CEDs collected and recycled cannot be credited toward a manufacturer's recycling obligation.

This year, 2016, marks the seventh year of the Indiana E-Cycle Program. This report will examine the last six years of the Program as well as provide the required annual information mandated by the Indiana legislature. For example, highlighting Program Year 6 (PY6), manufacturers collectively funded the recycling of 19,113,809 pounds of covered electronic devices, again exceeding their recycling obligation, before the addition of incentives. The vast majority of the weight recycled as part of the program continues to be collected from metropolitan counties in the state. For PY6, 84 percent of manufacturers that were registered submitted annual reports and 67 percent of recyclers registered for PY6 submitted annual reports.

Legislative Requirements

Under IC 13-20.5-7-4, IDEM is to submit a report concerning the implementation of the Indiana E-Waste Law to the general assembly, the governor, the Interim Study Committee on Environmental Affairs, and the Indiana Recycling Market Development Board before August 1.

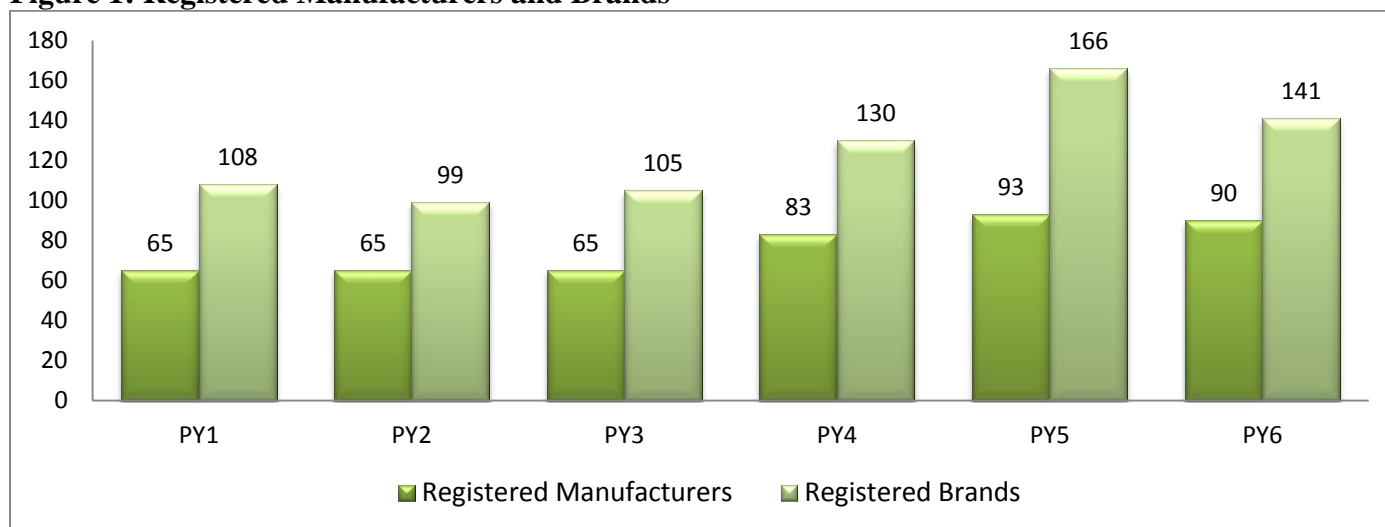
Required content includes:

- A summary of information in the annual reports submitted by manufacturers and recyclers.
- Information regarding the total weight of CEDs recycled.
- The various collection programs used by manufacturers to collect CEDs.
- Information regarding CEDs that are being collected by persons other than registered manufacturers, collectors, and recyclers.
- Information about CEDs, if any, being disposed of in landfills in Indiana.
- A description of enforcement actions under the Indiana E-Waste Law.

Program Participation

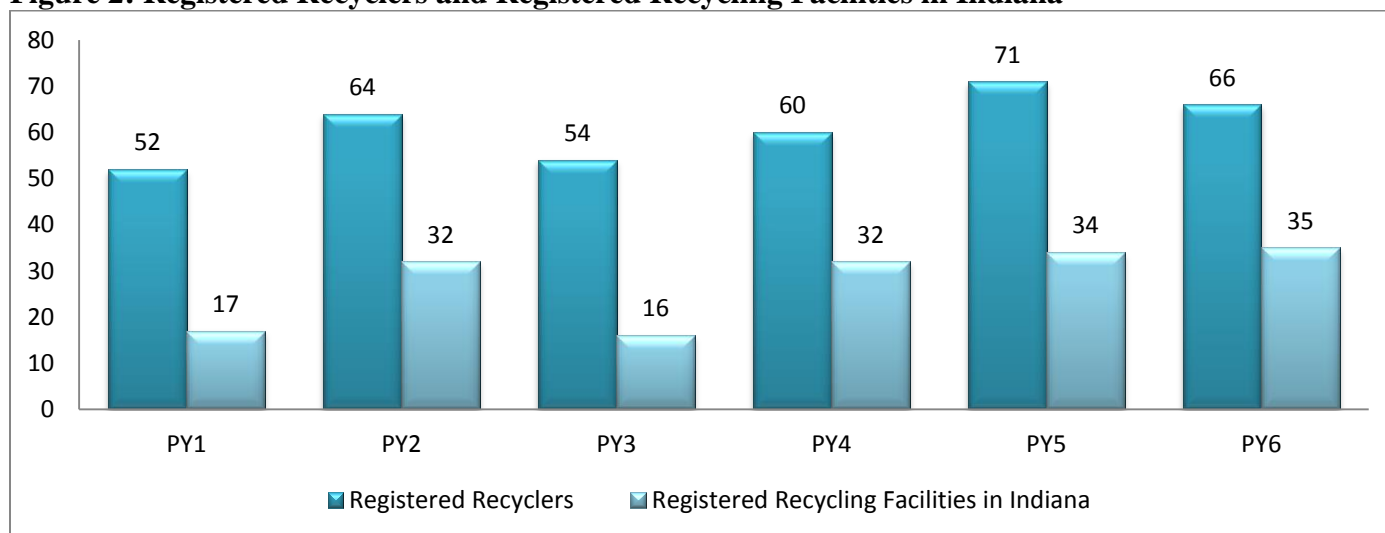
While the number of registered manufacturers and brands remained relatively unchanged from the previous program year, the companies that are registered has varied as new manufacturers enter the market, other manufacturers exit the market, and mergers and acquisitions occur. A total of 90 manufacturers registered with the Indiana E-Cycle Program for PY6. These 90 manufacturers accounted for 141 different brands of devices that are being sold to Indiana households.

Figure 1: Registered Manufacturers and Brands



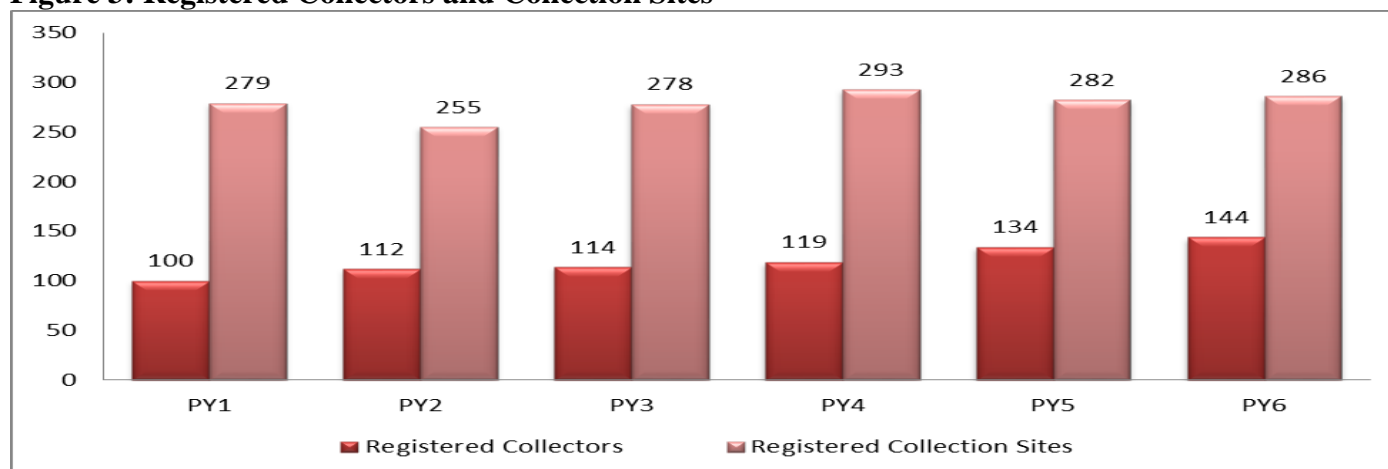
For each of the first six program years, the majority of registered recyclers have also been registered collectors. The number of registered recyclers for PY6 remained relatively unchanged from the previous program year. For PY6, of the 66 registered recyclers, 35 of them are located in Indiana.

Figure 2: Registered Recyclers and Registered Recycling Facilities in Indiana



As shown in **Figure 3**, the number of registered collectors and collection sites also remained relatively unchanged from the previous program year. Collectors are not allowed to perform any dismantling of CEDs and they do not have to be located in Indiana to participate in the program.

Figure 3: Registered Collectors and Collection Sites



Summary of Information in the Annual Reports Submitted by Manufacturers and Recyclers (Including Total Weight of CEDs Recycled)

A 50% incentive is earned for collecting CEDs from non-metropolitan counties in the state and a 10% incentive is earned for recycling CEDs at a registered facility in Indiana. These incentives can be combined; for example, each pound of CED collected from a non-metropolitan county and recycled at an in-state recycling facility is counted as 1.6 pounds recycled. Figures 4 and 5 show how many pounds of CEDs were recycled by manufacturers registered in PY6 and the previous program years in which annual reports were submitted. Program Year 6 annual reports were not received from 14 of the 90 manufacturers that were registered in 2015.

Figure 4: Covered Electronic Devices Recycled by Registered Manufacturers (lbs.)

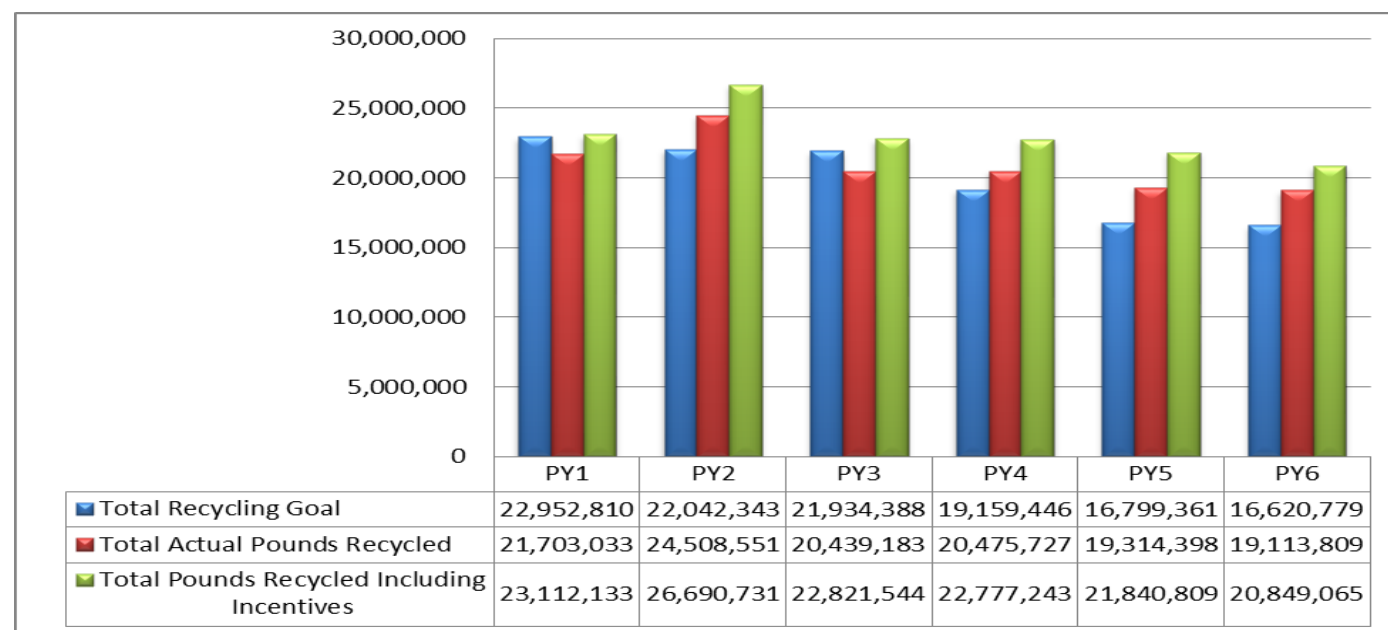
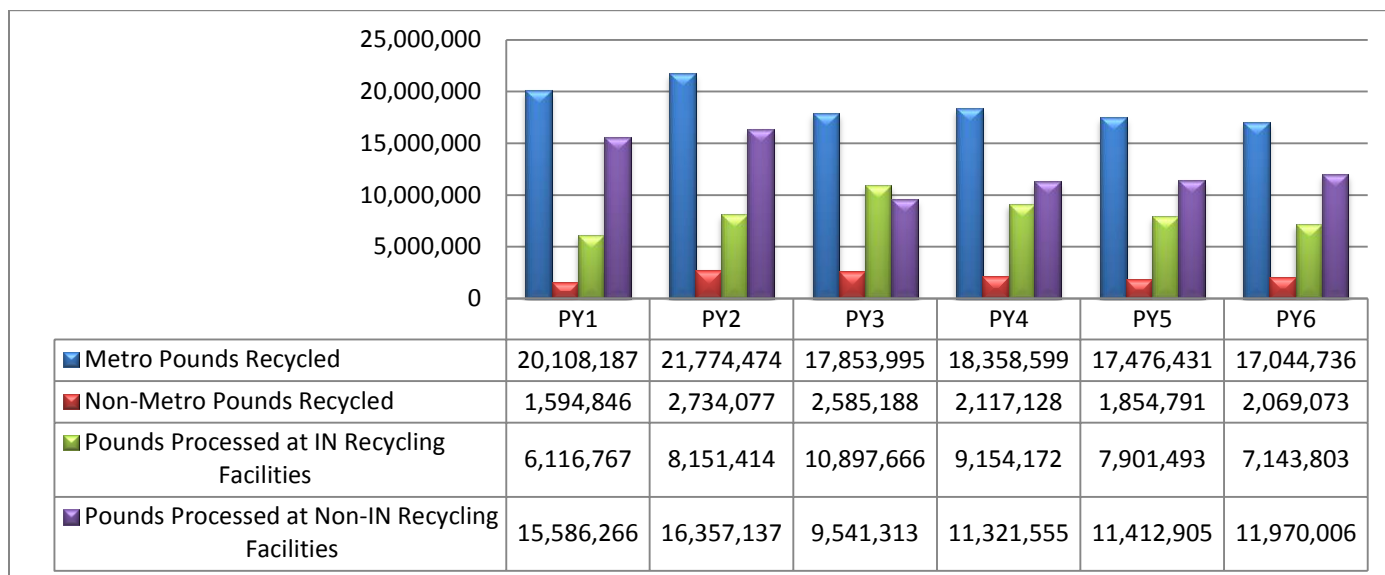


Figure 5: Covered Electronic Devices Recycled by Registered Manufacturers: Details (lbs)

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Figures 6 and 7 show how many pounds of CEDs were recycled by recyclers registered in PY6 and the previous program years in which annual reports were submitted. Recyclers recycled approximately 890,000 pounds over what registered manufacturers were responsible for recycling.

Figure 6: Covered Electronic Devices Recycled by Registered Recyclers (lbs)

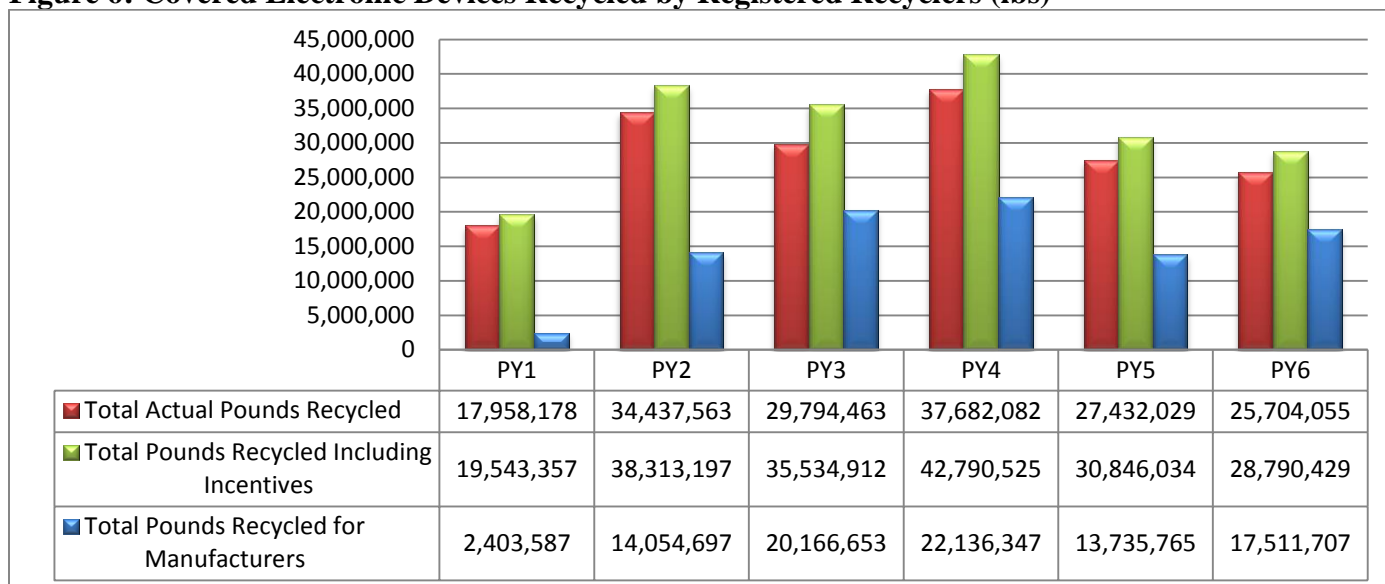
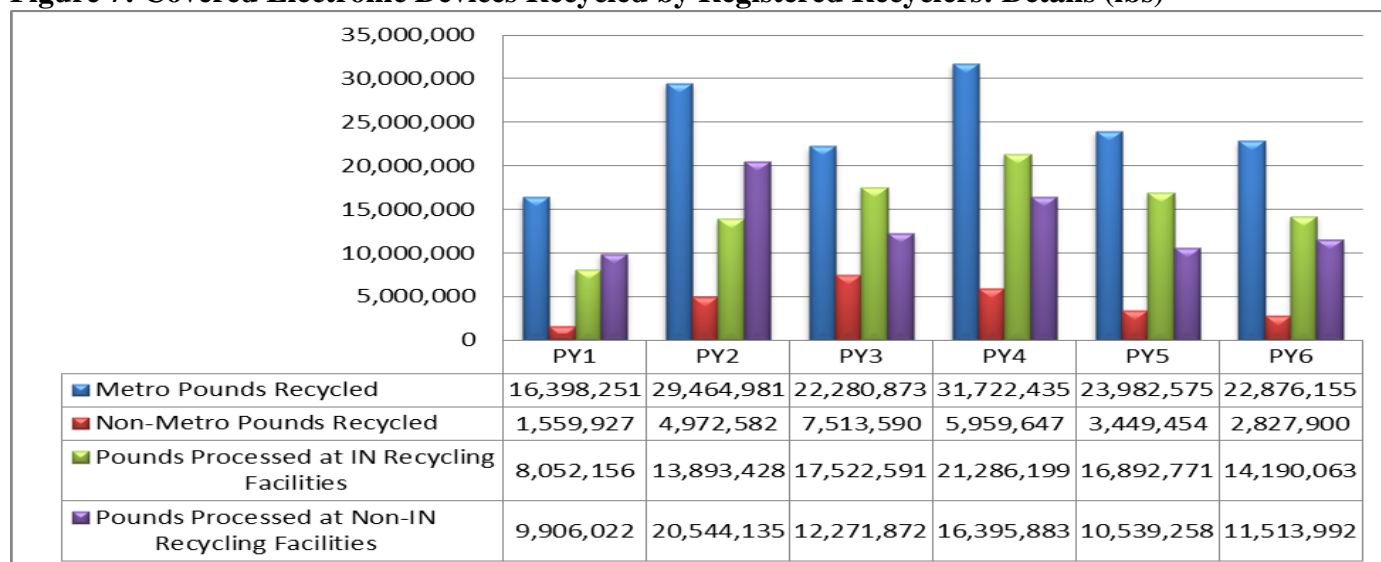


Figure 7: Covered Electronic Devices Recycled by Registered Recyclers: Details (lbs)



Based on the reporting trends, the demand for CED recycling in Indiana will continue to exceed the amount of CEDs that manufacturers are responsible for recycling given that new VDDs are becoming lighter than older CEDs. In addition, the list of items that meet the definition of CED is more extensive than the list of items that are defined as VDDs. Lastly, manufacturers' recycling obligations are based solely on their sales of VDDs to households, while CEDs collected to meet their recycling obligations can come from households, small businesses, and public schools.

The results of Indiana E-Cycle in terms of pounds of e-waste recycled per resident are as follows:

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6
Lbs./Capita (Actual Pounds)	3.35	3.78	3.13	3.12	2.93	2.89
Lbs./Capita (Including Incentives)	3.56	4.12	3.49	3.47	3.31	3.15

If a manufacturer exceeds their recycling obligation, 25% of the excess pounds are converted to recycling credits that can be used by the manufacturer in any of the three immediately following program years or sold to another manufacturer. Manufacturer credit details are as follows:

	<u>Credits Earned</u>	<u>Credits Bought/ Sold</u>	<u>Credits Used</u>	<u>Credits Expired</u>	<u>Credits Retained</u>	<u>Manufacturers Holding Credits</u>
PY1	1,074,733	0	n/a	n/a	1,074,733	18
PY2	1,623,705	0	19,253	n/a	2,653,837	23
PY3	555,630	0	116,758	n/a	3,090,762	26
PY4	967,292	87,256	104,592	809,875	3,039,188	37
PY5	1,174,168	246,957	808,867	586,136	2,579,219	29
PY6	1,057,072	0	128,070	465,811	3,024,254	25

Various Collection Programs Used by Manufacturers to Collect CEDs

Manufacturers registered with Indiana E-Cycle utilize three types of collection programs to fulfill their recycling obligations:

1. Permanent collection sites
2. Temporary/special collection events
3. Manufacturer take-back programs

Multistate Collaboration

The Indiana E-Cycle Law permits IDEM to participate in and join regional multistate organizations or compacts to assist in implementing the article. Although, Indiana has not taken advantage of this opportunity, IDEM does participate in regular conference calls with other Midwestern states, which are coordinated by U.S. EPA's Region 5 office. The majority of the states that participate in the calls also have e-waste laws, most notably, Minnesota and Wisconsin, which have laws comparable to Indiana's. The information shared and the coordination achieved on these calls is valuable in assisting with the implementation of Indiana's law.

Description of Enforcement Actions Under the Indiana E-Waste Law

Manufacturers that do not meet their recycling obligation are subject to a shortfall fee, or a variable recycling fee (VRF).

The VRF is calculated as follows:

- Forty cents per pound of shortfall for manufacturers that recycle less than 50 percent of their goal.
- Thirty cents per pound of shortfall for manufacturers that recycle at least 50 percent, but less than 90 percent, of their goal.
- Twenty cents per pound of shortfall for manufacturers that recycle at least 90 percent of their goal.

Nine manufacturers were required to pay a shortfall fee for PY5, resulting in \$3,852.36 for a total shortfall of 10,390 pounds. For PY6, eight manufacturers will be required to pay a shortfall fee for a total amount of \$4,723. Manufacturers that were exempt from the registration fee for PY6, because they sold less than 100 units of video display devices to households during PY5, are exempt from the VRF. There have not been any enforcement actions under the Indiana E-Waste Law.

Conclusion

Indiana's E-Cycle Program has achieved numerous successes since it took effect in 2009, most notably helping to allow for roughly 175 million pounds of covered electronic devices to be recycled. Indiana has also had the benefit of having a large number of collectors register with the program, which allows Indiana residents the ability to have numerous options in regards to recycling their electronic devices.

Since the inception of the program, the amount of e-waste that registered manufacturers are responsible for recycling each year has declined considerably. This is due in large part to the continued lightweighting of products (products getting smaller and/or weighing less) and changes in the types of products that are being purchased (e.g., tablets instead of laptops).

Although this report is as conclusive as the current data systems within IDEM allow, in the future the E-Cycle program is looking at ways to include information about CEDs that are being collected by persons other than registered manufacturers, collectors, and recyclers as well as information about CEDs, if any, being disposed of in landfills in Indiana.

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